

IN THE CLAIMS

1. (Currently amended) A method of switch hook detection for a host transceiver, comprising:

receiving a signal over a connection from a telephonic device;

determining if the signal is greater than a first preselected value;

adjusting a transient response time of the host transceiver configured to receive the signal in response to determining that the signal is greater than the first preselected value; and

determining a switch hook state of the telephonic device based on a DC component of the signal in response to adjusting at least a portion of the transient response time,

wherein adjusting the transient response time of the host transceiver includes increasing a bandwidth of a DC cancellation loop by increasing a step size of an integrator.

2. (Original) The method of claim 1, wherein the connection is a subscriber line, and wherein the DC component of the signal comprises a signal proportional to a DC current flowing from the subscriber line.

3. (Previously presented) The method of claim 1, wherein determining the switch hook state of the telephonic device includes introducing a first preselected interval delay based on a counter.

4. (Previously presented) The method of claim 2, wherein determining the switch hook state of the telephonic device includes introducing a first preselected interval delay based

on a counter, and wherein determining the switch hook state of the telephonic device includes determining if the DC current is greater than a second preselected value in response to the delay of the first preselected interval.

5. (Original) The method of claim 2, wherein determining if the signal is greater than the first preselected value comprises determining if a portion of the host transceiver is in a saturation state.

6. Cancelled.

7. Cancelled.

8. (Currently amended) The method of claim 7, further including decreasing the bandwidth of the DC cancellation loop in response to determining that the signal is less than a third preselected value.

9. (Original) The method of claim 8, wherein the third preselected value is an indication that the host transceiver is no longer in the saturation state.

10. (Currently amended) A method of switch hook detection for a host transceiver, comprising:

receiving a signal over a connection from a telephonic device;

detecting a transient in the signal;

waiting, using a counter, a first preselected interval in response to detecting the transient;
and
determining a switch hook state of the telephonic device based on a DC component of the
signal in response to waiting the first preselected interval and in response to
adjusting a bandwidth of a DC cancellation loop by adjusting a step size of an
integrator.

11. (Original) The method of claim 10, wherein the connection is a subscriber line,
and wherein the DC component of the signal comprises a signal proportional to a DC current
flowing from the subscriber line.

12. (Previously presented) The method of claim 11, wherein the first preselected
interval is equal or greater than a settling time of a low-pass filter employed to determine the
switch hook state.

13. (Currently amended) An apparatus, comprising:
first logic capable of receiving a signal over a connection from a telephonic device;
second logic capable of determining if the signal is greater than a first preselected value;
third logic configured to receive the signal, the third logic being capable of adjusting a
transient response time of at least one of a low pass filter and integrator in
response to determining that the signal is greater than the first preselected value,
wherein adjusting the transient response time of the low pass filter comprises

adjusting a filter coefficient of the filter and adjusting the transient of the time integrator comprises adjusting a gain of the integrator; and

fourth logic capable of determining a switch hook state of the telephonic device based on a DC component of the signal and in response to waiting a preselected time interval based on a counter.

14. (Original) The apparatus of claim 13, wherein the connection is a subscriber line, and wherein the DC component of the signal comprises a signal proportional to a DC current from the subscriber line.

15. Cancelled.

16. (Previously presented) The apparatus of claim 14, wherein the fourth logic being capable of determining the switch hook state of the telephonic device includes the fourth logic being capable of determining if the DC current is greater than a second preselected value.

17. (Original) The apparatus of claim 14, wherein the second logic being capable of determining if the signal is greater than the first preselected value comprises the second logic being capable of determining if a portion of the apparatus is in a saturation state.

18. (Original) The apparatus of claim 17, wherein the third logic being capable of adjusting the transient response time of the apparatus includes increasing a step size of an integrator adapted to receive the signal.

19. (Original) The apparatus of claim 18, wherein the third logic is further capable of decreasing the step size of the integrator in response to determining that the signal is less than a third preselected value.

20. (Original) The apparatus of claim 19, wherein the third preselected value is an indication that the apparatus is no longer in the saturation state.

21. (Currently amended) A host transceiver, comprising:
a terminal capable of receiving a signal; and
a subscriber line audio-processing circuit communicatively coupled to the terminal, the subscriber line audio-processing circuit capable of:
determining if the signal is greater than a first preselected value;
adjusting a transient response of the host transceiver configured to receive the signal in response to determining that the signal is greater than the first preselected value;
and
determining a switch hook state of the telephonic device based on a DC component of the signal in response to adjusting at least a portion of the transient response time
wherein adjusting the transient response time of the host transceiver includes adjusting at least one of a step size of an integrator and adjusting a filter coefficient of a filter.

22. (Original) The host transceiver of claim 21, wherein the connection is a subscriber line, and wherein the DC component of the signal comprises a signal proportional to a DC current from the subscriber line.

23. (Previously presented) The host transceiver of claim 22, wherein the subscriber line audio-processing circuit being capable of determining the switch hook state of the telephonic device includes the subscriber line audio-processing circuit being capable of determining if the DC current is greater than a second preselected value.

24. (Previously presented) The host transceiver of claim 22, wherein the subscriber line audio-processing circuit being capable of determining if the signal is greater than the first preselected value comprises the subscriber line audio-processing circuit being capable of determining if a portion of the apparatus is in a saturation state.

25. Cancelled.

26. (Currently amended) The host transceiver of claim ~~25~~20, wherein the subscriber line audio-processing circuit is further capable of decreasing the step size of the integrator in response to determining that the signal is less than a third preselected value.

27. (Original) The host transceiver of claim 26, wherein the third preselected value is an indication that the apparatus is no longer in the saturation state.

28. (Currently amended) An apparatus, comprising:

means for receiving a signal over a connection from a telephonic device;

means for determining if the signal is greater than a first preselected value;

means for adjusting a transient response time of the apparatus configured to receive the signal in response to determining that the signal is greater than the first preselected value wherein adjusting the transient response time of the host transceiver includes increasing a bandwidth of a DC cancellation loop by increasing a step size of an integrator; and

means for determining a switch hook state of the telephonic based on a DC component of the signal in response to adjusting at least a portion of the transient response time.